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EXAMINER
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MISLEH, JUSTIN P

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 06/04/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/328,669

Applicant(s)

KATAGIRI, YOSHITO

Examiner

Justin P Misleh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4 - 9, and 11 - 51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 2, 4 - 9, and 11 - 42 is/are allowed.
- 6) ☒ Claim(s) 43 - 47, and 51 is/are rejected.
- 7) ☒ Claim(s) 48 - 50 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date Z.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Any of the Applicant's arguments with respect to the previous, currently amended, and newly added claims have been considered but are moot in view of the new grounds of rejection and/or allowable of subject matter, respectively.

### ***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Drawings***

3. **Figures 1 and 9** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 43 – 45** are rejected under 35 U.S.C. 102(e) as being anticipated by Nishimura.

6. For **Claim 43**, Nishimura discloses, as shown in figures 2 and as stated in columns 3

(lines 42 – 67) and 4 (lines 1 – 65), a camera (30) comprising:

a first lens (13);

a second lens (12);

a photo-electric converting element (31) to receive a light incoming from a subject image through said first lens (13) and said second lens (12), and to convert said light into image signals (see column 3, lines 60 – 62);

a driving member (stepping motor, not shown, see column 2, line 49) to move said first lens (13) and said second lens (12) in an optical path (the movement direction of each of the lenses, corresponds to the hollow bi-directional arrows directly below each lens in figure 2, is directed along the optical path); and

a guiding member (although the details are not shown in figure 2, it is inherent that a guiding means exists or else the lenses 12 and 13 would not move along the optical axis, as shown, when driven by the driving member described above) for guiding said second lens (12) moved by said driving member so that a distance between said photo-electric converting element and said second lens changes step by step (Lens 12 is a variator lens or movable variable power lens moved by a lens driving mechanism 14 which includes a stepping motor; hence the distance between the photo-electric converting element 31 and lens 12 changes stepwise.) corresponding to a plurality of predetermined positions of said guiding means;

a discriminator (lens driving mechanism 14) to discriminate a position of said second lens (12) guided by said guiding member (see column 3, lines 52 – 56); and

an image processing section (imaging circuit 30) to apply an image processing, corresponding to a discrimination result (position data S14; see column 4, lines 31 – 39) outputted from said discriminator (14 and 15), to said image signals (by means of Sez) generated by said photo-electric converting element (31).

7. As for **Claim 44**, Nishimura discloses, as stated in column 2 (lines 42 – 51), the camera of Claim 43, wherein both a focal length changing operation (performed by lens 12) and a focus adjustment (performed by lens 13) are performed by means of said driving member. As stated above, the driving member to move the first lens (13) and the second lens (12) are stepping motors, which are not shown but included in the corresponding driving mechanisms. The stepping motors move the first lens (13) and said second lens (12) along an optical axis wherein the movement direction of each of the lenses corresponds to the hollow bi-directional arrows directly below each lens in figure 2 to perform a focal length changing operation and a focus adjustment.

8. As for **Claim 45**, Nishimura discloses, as stated in column 4 (lines 19 – 26), the camera of Claim 43, wherein the driving member selectively moves said second lens (12) to one of a plurality of predetermined positions of said guiding means during a focal length changing operation. The driving member for the second lens (12) is a stepping motor included in the driving mechanism (14) as described above. In regards to the guiding means, as stated above, although the details are not shown in figure 2, it is inherent that a guiding means exists or else the second lens (12) would not move along the optical axis, as shown, when driven by the

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driving member. Finally, in regards to the selectively of the driving member moving the second lens, when key Kz is operated, the driving member drives the second lens (12), which is a variable power lens, to increase the zoom magnification at a variable power speed which double per unit time, for example, from one time of the maximum wide angle lens state to n times of the maximum telephoto lens state; hence the second lens is selectively moved to plurality of predetermined positions.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claim 46** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura in view of Nakayama et al. (US 6 396 645 B1).

11. As for **Claim 46**, Nishimura discloses a camera comprised of a first lens, a second lens, a photo-electric converting element, a driving member to move each of the first and second lens in an optical path, and a guiding means to guide the first lens and the second lens moved by the driving member, wherein the driving member selectively moves said second lens to one of a plurality of predetermined positions of said guiding means during a focal length changing operation. However, Nishimura does not disclose the details of the particular arrangement of the first and second lenses with respect to the guiding means and the driving member and thus Nishimura do not disclose wherein the guiding means has a cam groove.

Nakayama et al. also disclose a first lens, a second lens, a guiding means, and a driving member for use with a camera. Nakayama et al. disclose, as shown in figures 1 and 2, the details of the particular arrangement of the first and second lenses with respect to the guiding means and the driving member. More specifically, Nakayama et al. disclose, a zoom lens barrel with a first lens (5), a second lens (7), and a guiding means (2c) wherein the guiding means has a cam groove (2d) as stated in column 20 (lines 14 – 43). As stated in column 2 (lines 6 – 14) of Nakayama et al., at the time the invention was made, one with ordinary skill in the art would have been motivated to include a guiding means that has a cam groove in the camera of Nishimura as a way to reduce the diameter of the lens barrel which reduces the overall size of the camera. Therefore, at the time the invention was made, it would have been obvious for one with ordinary skill in the art to have included a guiding means that has a cam groove, as taught by Nakayama et al., in the camera of Nishimura.

12. **Claims 47 and 51** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura.

13. As for **Claim 47**, Nishimura discloses a camera with a photoelectric converting element, however, does not disclose a display for displaying images based on said image signals. Official Notice is taken that both the concepts and advantages of providing a display for displaying images based on said image signals are well known and expected in the art. It would have been obvious for one with ordinary skill in the art to include a display as a means for previewing images prior to capture by the photoelectric-converting element.

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14. For **Claim 51**, Nishimura discloses, as shown in figures 2 and as stated in columns 3 (lines 42 – 67) and 4 (lines 1 – 65), a camera (30) comprising:

a first lens (13);

a second lens (12);

a photo-electric converting element (31) to receive a light incoming from a subject image through said first lens (13) and said second lens (12), and to convert said light into image signals (see column 3, lines 60 – 62);

a driving member (stepping motor, not shown, see column 2, line 49) to move said first lens (13) and said second lens (12) in an optical path (the movement direction of each of the lenses, corresponds to the hollow bi-directional arrows directly below each lens in figure 2, is directed along the optical path); and

a guiding member (although the details are not shown in figure 2, it is inherent that a guiding means exists or else the lenses 12 and 13 would not move along the optical axis, as shown, when driven by the driving member described above) for guiding said second lens (12) moved by said driving member so that a distance between said photo-electric converting element and said second lens changes step by step (Lens 12 is a variator lens or movable variable power lens moved by a lens driving mechanism 14 which includes a stepping motor; hence the distance between the photo-electric converting element 31 and lens 12 changes stepwise.) corresponding to a plurality of predetermined positions of said guiding means; and

wherein, when said driving member moves said first lens (13) and said second lens (12), guided by said guiding member, in said optical path so as to conduct both a zooming operation (performed by lens 12) and a focusing operation (performed by lens 13).



As stated above, the driving member to move the first lens (13) and the second lens (12) are stepping motors, which are not shown but included in the corresponding driving mechanisms. The stepping motors move the first lens (13) and said second lens (12) along an optical axis wherein the movement direction of each of the lenses corresponds to the hollow bi-directional arrows directly below each lens in figure 2 to perform a focal length changing operation and a focus adjustment.

Nishimura discloses a camera with a photoelectric converting element, however, does not disclose a display for displaying images based on said image signals. Official Notice is taken that both the concepts and advantages of providing a display for displaying images based on said image signals are well known and expected in the art. It would have been obvious for one with ordinary skill in the art to include a display as a means for previewing images prior to capture by the photoelectric-converting element.

***Allowable Subject Matter***

15. **Claims 1, 2, 4 – 9, and 11 – 42** are allowed.

The closest prior art teaches of a first lens, a second lens, and a driving member to move each of the first and second lenses, and guiding means for guiding the first and second lenses moved by the driving member for use in a camera. The closest prior art also teaches the camera includes a photo-electric converting element to receive the subject image through the first and second lenses and convert the subject image into image data and a single image processor for outputting image data after a selected processing. The closest prior art teaches that the single image processor is used to provide an electronic zooming circuit wherein electronic zooming is

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performed on the image data on the basis of predetermined magnification factors wherein the predetermined magnification factors compensate for limitations in traditional optical zoom. In the closest prior art, the single image processor performs image processing on the basis of predetermined information.

For **Claim 1**, the closest prior art does not teach or suggest a camera with two, rather than one, image processors wherein after a first image processing on the image data, wherein the image data is provided by a photo-electric converting element, a second image processing is performed on the image data wherein the second imaging processing is performed on the basis of a ranging operation that measures the distance between the camera and the subject image while the second lens is in one of a plurality of predetermined positions.

For **Claims 27 and 32**, the closest prior art does not teach or suggest a camera with a discriminator for discriminating whether the second lens is moved to a first region or a second region of the guiding means, wherein image processing outputs a first image data based on the image signal if the second lens is moved to a first region and a second image data if the second lens is moved to a second region.

For **Claims 38 and 39**, the closest prior art does not teach or suggest of a camera that includes a calculator to calculate an image magnification factor, which varies between before and after a focus adjustment, from a ranging signal of said ranging means, and variable power information designating a selected variable power region of said zoom lens.

For **Claims 40 and 41**, the closest prior art does not teach or suggest a camera with a discriminator for discriminating whether the second lens is moved to a first region or a second region of the guiding means, wherein image processing outputs a first image data based on the

image signal if the second lens is moved to a first region and a second image data if the second lens is moved to a second region.

16. **Claims 48 –50** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

For **Claim 48**, the closest prior art teaches as described above, however, the closest prior art does not teach or fairly suggest wherein an image processing section outputs image signals without applying said image processing when said discriminator determines that said second lens is located a first position, while said image processing section outputs processed image signals acquired by applying image processing when said discriminator determines that said second lens is located at a second position.

### ***Conclusion***

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 703.305.8090. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 5:30 PM and on alternating Fridays from 7:30 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wendy R Garber can be reached on 703.305.4929. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM  
May 19, 2004

  
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TECHNOLOGY CENTER 2600